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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,154	07/16/2002	Franz-Josef Adams	SWR-0080	2913

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EXAMINER

DUNWOODY, AARON M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 02/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,154

Applicant(s)

ADAMS ET AL.

Examiner

Aaron M Dunwoody

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,8 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) 11-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,8,11,12,14 and 17 is/are rejected.
- 7) ☒ Claim(s) 13,15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9. 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) filed 4/22/2002 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

Claims 1, 8 and 17 are objected to because of the following informalities:

Regarding claims 1, 8 and 17, the phrase "window-type" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "window-type"), thereby rendering the scope of the claim(s) unascertainable.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by US patent 3935717, Welschof.

In regards to claim 1, Welschof discloses a ball cage comprising:

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a ball cage blank (16) configured as a substantially annular spherical segment and having at least some functional zones (46) that are elevated as compared to an adjacent surface (any convenient surface) of the ball cage blank; and

window ball pockets (24) formed in the ball cage blank and located along an equator (any convenient equator) with substantially equator-parallel bearing surfaces that interact with joint balls (18),

wherein the functional zones are located at least on outer ring edge areas and interact with the joint bell (as a complete homokinetic joint)

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by US patent 3815381, Wagner.

In regards to claim 1, Wagner discloses a ball cage (30) comprising:
a ball cage blank (30) configured as a substantially annular spherical segment and having at least some functional zones (42c) that are elevated as compared to an adjacent surface (any convenient surface) of the ball cage blank; and

window ball pockets (44) formed in the ball cage blank and located along an equator (any convenient equator) with substantially equator-parallel bearing surfaces that interact with joint balls (32),

wherein the functional zones are located at least on outer ring edge areas and interact with the joint bell (as a complete homokinetic joint).

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Claims 11, 14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 5410902, Jacob.

In regards to claim 11, Jacob discloses a method of producing a ball cage, the method comprising:

machining a functional area (19a) of a ball blank with an uninterrupted cut, wherein before the machining (col. 5, lines 1-36), the functional area is elevated as compared to an adjacent surface of the ball cage blank.

In regards to claim 14, Jacob discloses after machining, the functional area is elevated compared to the adjacent surface.

In regards to claim 17, Jacob discloses stamping window ball pockets.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Welschof.

In regards to claim 8, Welschof discloses the claimed invention except for the window-type pockets having such dimensions that the surfaces, on which the equator-parallel functional zones are designed, being longer than these. It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the window-type pockets with such dimensions that the surfaces, on which the equator-parallel functional zones are designed, being longer than these, since a change

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in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacob in view of US patent 6161414, Hainz.

In regards to claim 12, Hainz discloses the claimed invention except for hardening the ball cage blank before the machining of the functional area. Hainz teaches hardening the ball cage blank before the machining of the functional area (col. 1, lines 26-32). As Hainz relates to a method for finishing a cage windows in a ball cage, it would have been obvious to one having ordinary skill in the art at the time the invention was made to hardening the ball cage blank before the machining of the functional area, since it was known in the art that ball cages are hardened prior to being ground.

Allowable Subject Matter

Claims 13, 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose a method for producing a ball cage comprising machining the functional area by hard-turning; nor, after machining, the functional area being at the same level as an adjacent surface; nor, forming the ball cage blank by rolling processing.

Response to Arguments

Applicant's arguments filed 11/7/2003 have been fully considered but they are not persuasive. The applicant argues:

The claim requires that the ball cage blank has at least some functional zones that are elevated. There is nothing in either Wagner or Welschof that teaches or suggests that ball cage blank has such elevated functional zones.

The Examiner disagrees. Wagner discloses a ball cage blank having elevated functional zones 46, and Welschof discloses a ball cage blank having elevated functional zones 42c; therefore, both Wagner and Welschof meet the claimed limitation.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is (703)

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306-3436. The examiner can normally be reached on Monday - Friday between 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

.amd


Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3670